3. Catherine

Program Name: Catherine.java **Input File: catherine.dat**

Catherine, like the rest of the word, is intrigued by the game of Wordle. She needs a program that will allow her to compare a target word and an attempted guess. Write a program that inputs first, the target word, then the guess. Compare the two words and provide the indicated output.

Note: Each word will be a 5-letter word consisting of lower-case letters only. For this program, neither word will contain any repeated letters. That is each word will contain five unique lower-case letters.

The program should compare the two words letter-by-letter.

(1) If the letter in position N of the guess matches the letter in position N of the target, the upper-case form of the letter will be printed in position N of the output.
(2) If the letter in position N of the guess is not anywhere in the target, an asterisk will be printed in position N of the output.
(3) If the letter in position N of the guess is in the target, but not in position N, the lower-case form of that letter in guess will be printed in position N of the output.

Input: The first line consists of a number N, representing the number of lines of data to follow. N will be in the range of [1,50]. The next N lines of data consist of two five-character strings each consisting only of lower-case letters. One space will separate those words.

Output: Each output will be five characters consisting of uppercase letters, lowercase letters, and asterisks.

Sample input:

```
5
logic texas
purse purse
china cloth
shore ascot
abcde edcba
```

Sample output:

```
*****
PURSE
C***h
*s*o*
edCba
```